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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,007	01/20/2004	Yu-Hung Sun	251210-1520	1629

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EXAMINER	
VAN ROY, TOD THOMAS	

ART UNIT	PAPER NUMBER
2828	

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/761,007	SUN ET AL.
	Examiner	Art Unit
	Tod T. Van Roy	2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

Claims 8-10 objected to because of the following informalities:

Claim 8 is objected to, as the last two lines of the claim are unclear: "...wherein the current on each current path is in an active region." It is believed that the applicant is referring to *transistors* operating in the active region, and has been examined as such. It is unclear to state a current on a current path to be in any type of region.

Claims 9-10 are objected to as they depend directly from claim 8.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-4, 5, 7, 8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Taguchi (US 6320890).

With respect to claims 1, 3, 5, and 7, Taguchi discloses a laser diode light emitting system comprising: a laser diode module (fig.1 LD) receiving a driving current to emit light (through pad #11c) and outputting a brightness signal corresponding to the

brightness of the light (emission from diode); a driving module changing a voltage level of a driving signal according to a voltage level of the brightness signal (pad #11b through current source #15, col.5 lines 22-25, 32-39); a plurality of bipolar junction transistors (BJTs) (fig.1 #28, 29, NPN) connected in parallel and coupled to a voltage source (each collector coupled to Vcc), providing the driving current to the laser diode module (each emitter coupled to bring current to LD, driving signal directly proportional to the brightness signal, col.5 lines 22-25, 32-39, and inversely proportional to the driving current, inherent function of the transistors in this configuration), wherein bases of the BJTs are coupled to the driving signal (coupled to #15, col.5 lines 22-25, 32-39) and wherein a value of the driving current is changed according to the voltage level of the driving signal (col.5 lines 22-25, 32-39).

With respect to claim 4, Taguchi discloses a photo-detector detecting the brightness of the light emitted from the laser diode to generate the brightness signal (col.5 lines 11-18), wherein the brightness of the light emitted from the laser diode is directly proportional to the brightness signal.

With respect to claims 8 and 10, Taguchi discloses a laser diode driving circuit as outlined in the rejection to claims 1 and 3, including a plurality of current paths (paths from emitters to the LD), each of which is controlled by the driving signal, wherein an amount of total currents on all current paths is the driving current, and wherein the current on each current path is in an active region (transistor operation in active region well known to one of ordinary skill in the art).

Claims 1-2, 4, 5-6, and 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Koishi (US 5513197).

With respect to claims 1-2, and 5-6, Koishi discloses a laser diode light emitting system comprising: a laser diode module (fig.1 LD) receiving a driving current to emit light (through current ILd) and outputting a brightness signal corresponding to the brightness of the light (emission from diode); a driving module changing a voltage level of a driving signal according to a voltage level of the brightness signal (col.3 lines 24-38); a plurality of bipolar junction transistors (BJTs) (fig.1 #6a, 6b, PNP) connected in parallel and coupled to a voltage source (each emitter coupled to Vcc), providing the driving current to the laser diode module (each collector coupled to bring current to LD, driving signal directly proportional to the brightness signal, col.3 lines 24-38, and inversely proportional to the driving current, inherent function of the transistors in this configuration), wherein bases of the BJTs are coupled to the driving signal (coupled to #12, col.3 lines 24-38) and wherein a value of the driving current is changed according to the voltage level of the driving signal (col.3 lines 24-38).

With respect to claim 4, Koishi discloses a photo-detector detecting the brightness of the light emitted from the laser diode to generate the brightness signal (col.3 lines 24-38), wherein the brightness of the light emitted from the laser diode is directly proportional to the brightness signal.

With respect to claims 8 and 9, Koishi discloses a laser diode driving circuit as outlined in the rejection to claims 1 and 2, including a plurality of current paths (paths from collectors to the LD), each of which is controlled by the driving signal, wherein an

amount of total currents on all current paths is the driving current, and wherein the current on each current path is in an active region (transistor operation in active region well known to one of ordinary skill in the art).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tod T. Van Roy whose telephone number is (571)272-8447. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on (571)272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVR